

CLAIMS

1. A process monitor for monitoring a process by a sensor wafer having a sensor formed on a semiconductor wafer, comprising a capacitor on the sensor wafer as a power supply.

5 2. A process monitor according to Claim 1, further comprising a memory to store measured data obtained by the monitoring.

10 3. A process monitor according to Claim 1, further comprising a timer which is used to specify a measuring time and a measuring period.

4. A process monitor according to Claim 1, further comprising an ROM storing a keyword.

15 5. A process monitor according to Claim 1, wherein said capacitor is formed by stacking a poly-silicon layer and a silicon nitride layer on said semiconductor wafer.

6. A semiconductor manufacturing apparatus having the process monitor of Claim 1, comprising a process monitor housing unit to store said process monitor.

20 7. A semiconductor manufacturing apparatus having the process monitor of Claim 1, comprising a charging unit to charge said capacitor, which is the power supply of the process monitor.

25 8. A semiconductor manufacturing apparatus having the process monitor of Claim 2, comprising a reader/writer to read and write the measured data stored in said memory.

30 9. A semiconductor manufacturing apparatus according to Claim 8, comprising a control unit which compares the measured data read by said reader/writer with predetermined reference data and controls the manufacturing process in a predetermined way, if the measured data exceeds a predetermined range of the reference data.